

METHOD OF ELECTROCHEMICALLY DETECTING NUCLEIC ACID
OLIGOMER HYBRIDIZATION EVENTS

ABSTRACT OF THE DISCLOSURE

The invention relates to a method for electrochemically detecting sequence-specific nucleic acid-oligomer hybridization events. DNA/RNA/PNA oligomer single strands which are bound to a conductive surface at one end and linked to a redoxactive unit at the other free end, serves as a hybridization matrix (probe). A proportion of the single strand oligonucleotides are hybridized by treatment with the oligonucleotide solution (target) being tested, with the result that the electrical communication between the conductive surface and the redoxactive unit, which is initially non- or barely existent, is increased. This enables a hybridization event to be detected using electrochemical methods such as voltammetry, amperometry or conductance measurement.